

Current Listing of Claims

In the claims, kindly replace all prior versions and listing of the claims with the following:

1. (Currently Amended) A method for synchronous change data capture, comprising the steps of:

generating a transaction identifier for each transaction in a plurality of transactions that uniquely identifies each transaction;

for each operation in a transaction, recording change data for the operation, ~~and the transaction identifier for the transaction in the plurality of transactions, and an~~
identifier to identify a relative ordering of each operation in the transaction in a
first database object wherein at least one of the transactions include a plurality of operations; ~~and~~

during a commit of the transaction, recording the transaction identifier and a system change number in a second database object, wherein the system change number indicates a timing of the commit that is later than a previously committed transaction; and

associating the change data in the first database object with the system change number in the second database object based on the transaction identifier by performing a join operation on the first database object and the second database object, and wherein the join operation puts the change data in the first database into an order based on when the operation for each change data in the first database occurred.

2. (Canceled)

3. (Previously presented) A method according to claim 1, further comprising,
during the commit of the transaction, the steps of:

obtaining a concurrency lock;

after obtaining the concurrency lock, generating the system change number and

performing said recording the transaction identifier and the system change number

in the second database object, and concluding the commit; and

after said recording the transaction identifier and the system change number in the

second database object, releasing the concurrency lock.

4. (Original) A method according to claim 1, wherein the first database object
comprises a change table and the second database object comprises a transaction table.

5. (Canceled)

6. (Original) A computer-readable medium bearing instructions for synchronous
change data capture, said instructions arranged, upon execution, to cause one or more
processors to perform the steps of the method according to claim 1.

7. (Currently Amended) A method for processing synchronously captured change
data, comprising:

accessing a first database object comprising change data for each operation in a

plurality of operations performed within each transaction in a plurality of

transactions, and a transaction identifier that uniquely identifies each transaction in

the plurality of transactions and the plurality of operations performed within each transaction, and an identifier to identify a relative ordering of each operation in the transaction;

accessing a second database object comprising a first transaction identifier and a first system change number; and

associating the change data in the first database object with the first system change number in the second database object based on the first transaction identifier by performing a join operation on the first database object and the second database object, wherein the first system change number is recorded during a commit of the transaction corresponding to the first transaction identifier and indicates a timing of the commit of the transaction corresponding to the first transaction identifier that is later than a previously committed transaction, and wherein the join operation puts the change data in the first database into an order based on when the operation for each change data in the first database occurred.

8. (Canceled)

9. (Original) A computer-readable medium bearing instructions for synchronous change data capture, said instructions arranged, upon execution, to cause one or more processors to perform the steps of the method according to claim 7.

10. (Currently Amended) A method for synchronous change data capture, comprising the steps of:

generating a transaction identifier that uniquely identifies a transaction;

for each operation in a transaction, recording change data for the operation, ~~and the~~ transaction identifier for the transaction ~~in the plurality of transactions, and an~~ identifier to identify a relative ordering of each operation in the transaction in a change table wherein at least one of the transactions include a plurality of operations; and

during a commit of the transaction, performing the steps of:

obtaining a concurrency lock;

after obtaining the concurrency lock, generating a system change number indicating a timing of the commit of the transaction that is later than a previously committed transaction and recording the transaction identifier and the system change number in a database table; ~~and~~

after said recording the transaction identifier and the system change number in the second database table, releasing the concurrency lock; and

associating the change data in the first database object with the system change number in the second database object based on the transaction identifier by performing a join operation on the first database object and the second database object, and wherein the join operation puts the change data in the first database in an order based on when the operation for each change data in the first database occurred.

11. (Original) A computer-readable medium bearing instructions for synchronous change data capture, said instructions arranged, upon execution, to cause one or more processors to perform the steps of the method according to claim 10.

12. (Previously presented) A method according to claim 10, wherein the system change number indicates an event occurring between said obtaining the concurrency lock and said releasing the concurrency lock.

13. (Previously presented) A method according to claim 12, wherein the system change number indicates an event occurring before the commit of the transaction.

14. (Previously presented) A method according to claim 10, further comprising generating a commit system change number for the transaction that is later than the system change number.

15. (Previously presented) A method according to claim 3, wherein the system change number indicates an event occurring between said obtaining the concurrency lock and said releasing the concurrency lock.

16. (Previously presented) A method according to claim 1, wherein the system change number indicates an event occurring before the commit of the transaction.

17. (Previously presented) A method according to claim 1, further comprising generating a commit system change number for the transaction that is later than the system change number.